

WE CLAIM:

1. A data management system including:
  - a database for storing a plurality of data libraries; and
  - 5 an interface for controlling storage of data in the data libraries of said database and allowing access to said data by a plurality of external organisations, each organisation including one or more respective members; wherein the interface includes a security structure controlling access of the members of the organisations to the data.
- 10 2. A system according to claim 1 wherein the organisations operate respective data storage/communication systems and include an external connection to the database.
- 15 3. A system according to claim 3 wherein the data storage/communication systems include respective administrator rights for the respective systems.
4. A system according to claim 1 wherein access of the members to the data includes at least reading, writing and editing of the data.
5. A system according to claim 1 wherein the data libraries have different respective ownerships.
- 20 6. A system according to claim 1 wherein one or more of the data libraries is owned by a respective organisation.
7. A system according to claim 1 wherein the security structure allows the members to request operation of functions with respect to the database, the functions including access to the data.
- 25 8. A system according to claim 7 wherein, when a member of one of the

organisations requests a function, security structure requires that the ID of the member be authenticated.

9. A system according to claim 7 wherein the security structure includes a list of functions available to respective members of the organisations and, when a  
5 member of one of the organisations requests a function, the security structure requires that it be determined that the requested function is available to the member.

10. A system according to claim 9 wherein the security structure includes, for each organisation, one or more roles, each role relating to one or more functions and defining the members of the organisation entitled to operate the one or more  
10 functions of the role.

11. A system according to claim 10 wherein the security structure includes one or more templates, each template providing a list of one or more functions and the roles having pointers to the templates so as to indicate the one or more functions available to the members defined for the role.

15 12. A system according to claim 7 wherein the security structure includes, for each respective organisation, an indication of all others of the organisations to which said respective organisation is visible and, when a member of one of the organisations requests a function, the security structure requires that it be determined that the function does not require access to data of a data library owned by an  
20 organisation which is not visible to the organisation of the member.

13. A system according to claim 7 wherein the security structure provides for each target of a function to have associated with it one or more permissions, the permissions allowing defined functions to be operated by defined members and, when a member of one of the organisations requires a function, the security structure  
25 requires that it be determined that the requested function and said member be included in the permissions of the target of the function.

14. A system according to claim 7 wherein the security structure provides for each function to allow multiple targets.

15. A system, method or structure wherein data files of said data libraries have associated permissions, the permissions allowing defined functions to be operated upon respective data files by defined members and, when a member of one of the organisations requests a function on a data file, the security structure requires  
5 that it be determined that the requested function and said member are included in the permissions of the data file.

16. A method of providing a plurality of external organisations with access to a common database containing a plurality of data libraries, each organisation including one or more respective members, the method including the  
10 steps of a security structure for controlling access of members of the organisations to the data.

17. A method according to claim 16 wherein the organisations operate respective data storage/communication systems and include an external connection to the database.

15 18. A method according to claim 17 wherein the data storage/communication systems include respective administrator rights for the respective systems.

19. A method according to claim 16 wherein access of the members to the data includes at least reading, writing and editing of the data.

20 20. A method according to claim 16 wherein the data libraries have different respective ownerships.

21. A method according to claim 16 wherein one or more of the data libraries is owned by a respective organisation.

22. A method according to claim 16 wherein the security structure allows  
25 the members to request operation of functions with respect to the database, the functions including access to the data.

23. A method according to claim 22 wherein, when a member of one of

the organisations requests a function, security structure requires that the ID of the member be authenticated.

24. A method according to claim 22 wherein the security structure includes a list of functions available to respective members of the organisations and,
- 5 when a member of one of the organisations requests a function, the security structure requires that it be determined that the requested function is available to the member.

25. A method according to claim 24 wherein the security structure includes, for each organisation, one or more roles, each role relating to one or more functions and defining the members of the organisation entitled to operate the one or
- 10 more functions of the role.

26. A method according to claim 25 wherein the security structure includes one or more templates, each template providing a list of one or more functions and the roles having pointers to the templates so as to indicate the one or more functions available to the members defined for the role.

- 15 27. A method according to claim 22 wherein the security structure includes, for each respective organisation, an indication of all others of the organisations to which said respective organisation is visible and, when a member of one of the organisations requests a function, the security structure requires that it be determined that the function does not require access to data of a data library owned
- 20 by an organisation which is not visible to the organisation of the member.

28. A method according to claim 22 wherein the security structure provides for each target of a function to have associated with it one or more permissions, the permissions allowing defined functions to be operated by defined members and, when a member of one of the organisations requires a function, the
- 25 security structure requires that it be determined that the requested function and said member be included in the permissions of the target of the function.

29. A method according to claim 22 wherein the security structure provides for each function to allow multiple targets.

30. A security structure for use with a database storing a plurality of data libraries, the security structure allowing an interface between different external organisations and data of the data libraries, each organisation having one or more respective members and the security structure controlling access of the members of 5 different organisations to the data of the data.

31. A structure according to claim 30 wherein the organisations operate respective data storage/communication systems and include an external connection to the database.

32. A structure according to claim 31 wherein the data 10 storage/communication systems include respective administrator rights for the respective systems.

33. A structure according to claim 30 wherein access of the members to the data includes at least reading, writing and editing of the data.

34. A structure according to claim 30 wherein the data libraries have 15 different respective ownerships.

35. A structure according to claim 30 wherein one or more of the data libraries is owned by a respective organisation.

36. A structure according to claim 30 wherein the security structure allows the members to request operation of functions with respect to the database, the 20 functions including access to the data.

37. A structure according to claim 36 wherein, when a member of one of the organisations requests a function, security structure requires that the ID of the member be authenticated.

38. A structure according to claim 36 wherein the security structure 25 includes a list of functions available to respective members of the organisations and, when a member of one of the organisations requests a function, the security structure requires that it be determined that the requested function is available to the member.

39. A structure according to claim 38 wherein the security structure includes, for each organisation, one or more roles, each role relating to one or more functions and defining the members of the organisation entitled to operate the one or more functions of the role.

5 40. A structure according to claim 39 wherein the security structure includes one or more templates, each template providing a list of one or more functions and the roles having pointers to the templates so as to indicate the one or more functions available to the members defined for the role.

10 41. A structure according to claim 36 wherein the security structure includes, for each respective organisation, an indication of all others of the organisations to which said respective organisation is visible and, when a member of one of the organisations requests a function, the security structure requires that it be determined that the function does not require access to data of a data library owned by an organisation which is not visible to the organisation of the member.

15 42. A structure according to claim 36 wherein the security structure provides for each target of a function to have associated with it one or more permissions, the permissions allowing defined functions to be operated by defined members and, when a member of one of the organisations requires a function, the security structure requires that it be determined that the requested function and said 20 member be included in the permissions of the target of the function.

43. A structure according to claim 36 wherein the security structure provides for each function to allow multiple targets.

44. A computer program comprising program code means for performing all the steps of the method of claim 16 when said program is run on a computer.

25 45. A computer program product comprising program code means stored on a computer readable medium for performing all the steps of claim 16 when said program product is run on a computer.